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     (FILE 'HOME' ENTERED AT 15:02:39 ON 29 JAN 2003)

     FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 15:02:57 ON
     29 JAN 2003
L1           183 S APTAMER AND CONCENTR?
L2            83 DUPLICATE REMOVE L1 (100 DUPLICATES REMOVED)
L3            23 S L2 AND NUCLEIC ACID

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updated inventor search 1/29/03 LVC

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     (FILE 'HOME' ENTERED AT 12:51:16 ON 29 JAN 2003)

     FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 12:52:15 ON
     29 JAN 2003
L1           121 S APTAMER AND QUANTI?
L2            46 S L1 AND NUCLEIC ACID
L3            33 DUPLICATE REMOVE L2 (13 DUPLICATES REMOVED)
L4            40 S APTAMER AND AMOUNT
L5            10 S L4 AND NUCLEIC ACID
L6            60 DUPLICATE REMOVE L1 (61 DUPLICATES REMOVED)

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     (FILE 'HOME' ENTERED AT 12:51:16 ON 29 JAN 2003)

     FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 12:52:15 ON
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L1           121 S APTAMER AND QUANTI?
L2            46 S L1 AND NUCLEIC ACID
L3            33 DUPLICATE REMOVE L2 (13 DUPLICATES REMOVED)
L4            40 S APTAMER AND AMOUNT
L5            10 S L4 AND NUCLEIC ACID
L6            60 DUPLICATE REMOVE L1 (61 DUPLICATES REMOVED)

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     (FILE 'HOME' ENTERED AT 15:02:39 ON 29 JAN 2003)

     FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 15:02:57 ON
     29 JAN 2003
L1           183 S APTAMER AND CONCENTR?
L2            83 DUPLICATE REMOVE L1 (100 DUPLICATES REMOVED)
L3            23 S L2 AND NUCLEIC ACID

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FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 11:13:50 ON 29 JAN 2003

L1 2389 S APTAMER
L2 121 S L1 AND QUANTI?
L3 46 S L2 AND NUCLEIC ACID
L4 33 DUPLICATE REMOVE L3 (13 DUPLICATES REMOVED)

L5 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN 2000:299876 CAPLUS
DN 133:204835
TI **Aptamers**: another use for oligonucleotides
AU Conrad, Richard C.
CS Lilly Research Labs, Lilly Corporate Center, Eli Lilly and Co., Indianapolis, IN, 46285, USA
SO Antisense Technology in the Central Nervous System (1999), 195-217.
Editor(s): Leslie, Ronald A.; Hunter, A. Jackie; Robertson, Harold A.
Publisher: Oxford University Press, Oxford, UK.
CODEN: 68XUAZ
DT Conference; General Review
LA English
CC 9-0 (Biochemical Methods)
AB A review with 32 refs. With the advent of simple means for replication of **nucleic acids** in vitro and the ability to chem. synthesize large **amts**. of **nucleic acids** in the 100 nucleotide (nt)range, novel **nucleic acids** with previously unknown binding functionalities can be created and propagated in vitro. Variations of these and other techniques can be used to find these novel binding **nucleic acids**, using a procedure of cycled amplification and selection steps referred to as SELEX (systematic evolution of ligands by exponential enrichment). The actual **nucleic acid** ligands are called **aptamers**. This chapter is meant to serve as a primer for the selection of **aptamers**, providing a basic approach to SELEX.
ST review SELEX **nucleic acid aptamer** selection
IT RNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**aptamers**; selection of **aptamers** using SELEX)
IT **Nucleic acids**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ligands, **aptamers**; selection of **aptamers** using SELEX)
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L5 ANSWER 7 OF 10 MEDLINE

L6 ANSWER 51 OF 60 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 19
AN 2000:72134 CAPLUS
DN 133:55582
TI The use of **aptamers** in large arrays for molecular diagnostics
AU Brody, Edward N.; Willis, Michael C.; Smith, Jonathan D.; Jayasena, Sumedha; Zichi, Dominic; Gold, Larry
CS NeXstar Pharmaceuticals, Inc, Boulder, CO, 80301, USA
SO Molecular Diagnosis (1999), 4(4), 381-388
CODEN: MDIAFU; ISSN: 1084-8592
PB Churchill Livingstone
DT Journal
LA English
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3, 6
AB Background: **Aptamers** are single-stranded oligonucleotides derived from an in vitro evolution protocol called systematic evolution of ligands by exponential enrichment (SELEX). They bind tightly and specifically to target mols.; most **aptamers** to proteins bind with Kds (equil. dissocn. const.) in the range of 1 pM to 1 nM. Methods and Results: The SELEX protocol has been automated; therefore, hundreds to thousands of **aptamers** can be made in an economically feasible fashion. Blood and urine can be analyzed on chips that capture and **quantitate** proteins. SELEX has been adapted to the use of 5-bromo (5-Br) and 5-iodo (5-I) deoxyuridine residues. These halogenated bases can be specifically cross-linked to proteins. Selection pressure during in vitro evolution can be applied for both binding specificity and specific photo-cross-linkability. These are sufficiently independent parameters to allow one reagent, a photo-cross-linkable **aptamer**, to substitute for two reagents, the capture antibody and the detection antibody, in a typical sandwich array. After a cycle of binding, washing, crosslinking, and detergent washing, proteins will be specifically and covalently linked to their cognate **aptamers**. Conclusions: Because no other proteins are present on the chips, protein-specific stain will now show a meaningful array of pixels on the chip. Learning algorithms and retrospective studies should lead to a robust, simple, diagnostic chip.
ST **aptamer** oligonucleotide mol diagnosis protein analysis method
IT Oligonucleotides
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(SELEX **aptamers**; use of **aptamers** in large arrays for mol. diagnostics)
IT Diagnosis
(agents; use of **aptamers** in large arrays for mol. diagnostics)
IT Diagnosis
(mol.; use of **aptamers** in large arrays for mol. diagnostics)
IT Proteins, general, analysis
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(use of **aptamers** in large arrays for mol. diagnostics)
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
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